

**METHOD AND APPARATUS TO REDUCE RF POWER DEPOSITION DURING
MR DATA ACQUISITION**

ABSTRACT

5 A system composed of multiple transmit coils with corresponding RF pulse
synthesizers and amplifiers is disclosed. A method of designing RF pulses specific to
each transmit coil to dynamically control RF power deposition across an imaging volume
is also disclosed, where parallel excitation with the transmit coils allows for management
of RF power deposition on a subject while facilitating faithful production of a desired
10 excitation profile. The present invention also supports reduction in scan time and is
applicable to any coil array geometry.